

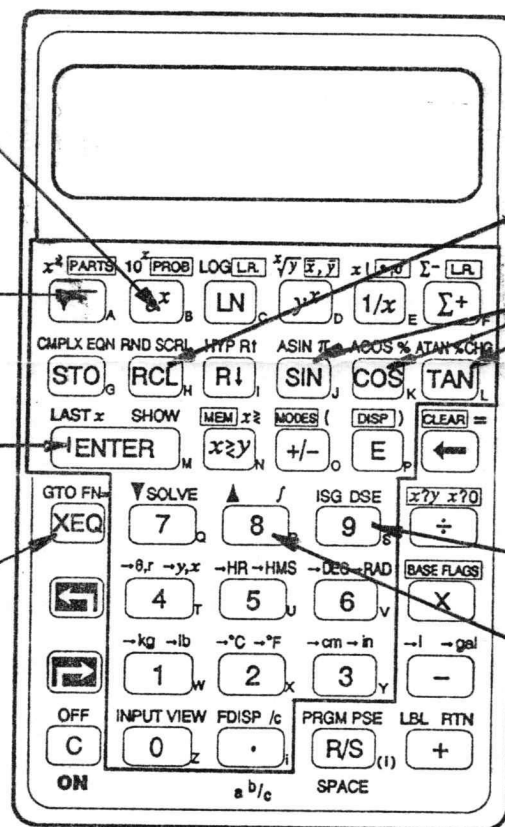
HP 32S CALCULATOR BASICS PROGRAMS AND EXAMPLES ARE INCLUDED

CONVERT TO
FEET/INCHES/16'S

CONVERT TO
DECIMAL FEET

RUNNING DIM.
ADDIATOR

EXECUTE
PROGRAM



1. READ CHAPTERS 1, 2 AND 3 IN THE OWNERS MANUAL. THIS WILL PROVIDE YOU WITH THE BASICS OF "RPN", STORING VARIABLES AND THE STACK REGISTER.
2. YOUR CALCULATOR SHOULD BE SET TO 4 DECIMAL PLACES. REFER TO PAGE 1-16 IN THE OWNERS MANUAL.
3. CALCULATOR PROGRAMS

PROGRAM DESCRIPTIONEXAMPLE

XEQ A CONVERT FEET, INCHES, 16'S TO DECIMAL FEET FORMAT. INPUT: FFF.IISS OUTPUT: FFF.IIII TEST INPUT: 5.0607 (5'-6 7/16") OUTPUT: 5.5365	<table><tr><th>KEYS</th><th>DISPLAY</th><th>DESCRIPTION</th></tr><tr><td>1.0608 XEQ A</td><td>RUNNING</td><td>ENTER DIM.</td></tr><tr><td></td><td>1.5417</td><td>ANSWER</td></tr></table>	KEYS	DISPLAY	DESCRIPTION	1.0608 XEQ A	RUNNING	ENTER DIM.		1.5417	ANSWER
KEYS	DISPLAY	DESCRIPTION								
1.0608 XEQ A	RUNNING	ENTER DIM.								
	1.5417	ANSWER								
XEQ B CONVERT DECIMAL FEET TO FF.IISS FORMAT. INPUT: FFF.IIII OUTPUT: FFF.IISS TEST INPUT: 12.8645 OUTPUT: 12.1006 (12'-10 6/16" OR 12'-10 3/8")	<table><tr><th>KEYS</th><th>DISPLAY</th><th>DESCRIPTION</th></tr><tr><td>2.4531 XEQ B</td><td>RUNNING</td><td>ENTER DIM.</td></tr><tr><td></td><td>2.0507</td><td>ANSWER: 2'-5 7/16"</td></tr></table>	KEYS	DISPLAY	DESCRIPTION	2.4531 XEQ B	RUNNING	ENTER DIM.		2.0507	ANSWER: 2'-5 7/16"
KEYS	DISPLAY	DESCRIPTION								
2.4531 XEQ B	RUNNING	ENTER DIM.								
	2.0507	ANSWER: 2'-5 7/16"								

XEQ M		KEYS	DISPLAY	DESCRIPTION
RUNNING ADDIATOR WITH BUILT IN CONVERSION. INPUT: FFF.IISS OUTPUT: FFF.IISS		1.0608 XEQ A	RUNNING	ENTER DIM.
			1.5417	ANSWER
		.0708 XEQ M	RUNNING	7 1/2" IS ADDED TO 1'-6 1/2"
			2.0200	ANSWER 2'-2"
		1.02 +/- XEQ M	RUNNING	SUBTRACT 1'-2"
			1.0000	ANSWER 1'-0"
TEST				
+ 1'-5 3/8				
- 10'-5 15/16				
- 0'-8 1/2"				
+ 3'-5 5/16"				
- 0'-3 1/2"				

= 14'-4 10/16 = 14'- 4 5/8"				

NOTES:

THIS PROGRAM WILL CONTINUE TO ADD OR SUBTRACT DIMENSIONS. IT IS IMPORTANT THAT THE FIRST DIMENSION IS ALWAYS CONVERTED TO DECIMAL FEET (

XEQ A

).

PROGRAM DESCRIPTIONEXAMPLE

<u>XEQ</u> <u>S</u>	KEYS	DISPLAY	DESCRIPTION
CONVERT PITCH TO ANGLE AND STORE TRIG VALUES INPUT: PITCH OUTPUT: ROOF SLOPE ANGLE TEST INPUT: 2 OUTPUT: 9.4623 DEGREES	1 <u>XEQ</u> <u>S</u>	RUNNING	ENTER PITCH
		4.7636	ANGLE
<u>XEQ</u> <u>R</u>	KEYS	DISPLAY	DESCRIPTION
CONVERT DEGREES TO PITCH AND STORE TRIG VALUES INPUT: ANGLE DEGREES OUTPUT: PITCH TEST INPUT: 36.2578 OUTPUT: 8.8013 : 12 PITCH	18.4349 <u>XEQ</u> <u>R</u>	RUNNING	ENTER ANGLE
		4	ANSWER: 4:12

NOTE:

AFTER YOU ENTER AND STORE AN ANGLE OR PITCH, THE TRIG FUNCTIONS CAN BE
 ACCESSED USING THE FOLLOWING.

SINE

COSINE

TANGENT

RCL SINRCL COSRCL TAN

(FUNCTIONS ONLY WORK WITH DIMENSIONS IN DECIMAL FEET FORMAT)

THE ANSWERS WILL ALSO BE DISPLAYED IN DECIMAL FEET. TO CONVERT BACK
 TO FF.IISS FORMAT, PRESS: XEQ B

1. FIND THE SLOPE OF 10'-5 5/8" AT A PITCH OF 3:12:

KEYS	DISPLAY	DESCRIPTION
3 XEQ S	RUNNING	ENTER AND STORE PITCH
	14.0362	DISPLAY ANGLE IN DEGREES
10.0510 XEQ A	RUNNING	CONVERT 10'-5 5/8" TO DECIMAL FT
	10.4688	DISPLAY DECIMAL FEET DIMENSION
RCL COS ÷	10.7909	$\text{DIM} \div \text{COS} = \text{SLOPE IN DEC. FT.}$
XEQ B	RUNNING	CONVERT DIM. TO FF.IISS FORMAT
	10.0908	DISPLAY ANSWER 10'-9 1/2

2. FIND RISE OF 8 1/2" AT A 4.7636° ROOF-ANGLE:

KEYS	DISPLAY	DESCRIPTION
4.7636 XEQ R	RUNNING	ENTER AND STORE PITCH
	1.0000	DISPLAY PITCH
0.0808 XEQ A	RUNNING	CONVERT 8 1/2" TO DECIMAL FT.
	0.7083	DISPLAY DECIMAL FEET DIMENSION
RCL TAN X	0.0590	$\text{DIM} \times \text{TAN} = \text{RISE IN DEC. FT.}$
XEQ B	RUNNING	CONVERT DIM. TO FF.IISS FORMAT
	0.0011	DISPLAY ANSWER 11/16"

HP CALCULATOR BASICS
PROGRAMS FOR 32SII ONLY

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REFER TO CHAPTER 12 IN THE OWNERS MANUAL.

A01 LBL A IP STO S R↓ LASTX FP 100 * ENTER IP 12 ÷ STO+ S R↓ FP 100 * 192 ÷ RCL S + ENTER STO Z A24 RTN	M01 LBL M XEQ Z ENTER RCL Z + STO Z XEQ B M08 RTN R01 LBL R TAN 12 * XEQ S TAN 12 * R09 RTN	Z01 LBL Z IP STO S R↓ LASTX FP 100 * ENTER IP 12 + STO+ S R↓ FP 100 * 192 ÷ RCL S + Z22 RTN
B01 LBL B IP STO R LASTX FP 12 * STO S IP .01 * STO+ R RCL S FP .0001 * 16 * RCL R + B21 RTN	S01 LBL S 12 ÷ STO L ATAN COS STO K ACOS SIN STO J ASIN STO T S13 RTN	

* NOTES MULTIPLICATION